

CLAIMS

What is claimed is:

1. A method of managing notifications in a web-based notifications system, said notifications system being configured to provide notifications to a user via a data communication network, said notifications containing content provided by one or more content providers, said content relating to one or more topics, said method comprising:
 - implementing a web service responsive to requests structured according to an extensible messaging framework;
 - receiving, at the web service, a request from a content provider, said request specifying a selected notification management function, said request being structured according to the messaging framework;
 - extracting request information from the request, said request information including at least a content provider identifier and a topic identifier; and
 - executing the selected notification management function based on the extracted request information.
2. The method of claim 1, wherein the extensible messaging framework comprises a Simple Object Access Protocol (SOAP) and wherein the request comprises a SOAP request.

3. The method of claim 1, wherein the request includes a header and wherein extracting request information comprises extracting the content provider identifier from the header.

4. The method of claim 1, further comprising creating a response object in response to said received request, said response object being structured according to the messaging framework, said response object containing information relating to either success or failure of the request.

5. The method of claim 4, further comprising sending the response object to the content provider via the data communication network.

6. The method of claim 1, further comprising providing a command line utility configured for use by the content provider to structure the request according to the messaging framework.

7. The method of claim 1, wherein executing the selected notification management function comprises performing a function corresponding to the topic identifier specified by the extracted request information selected from the group consisting of: creating a topic; deleting a topic; updating a topic; and enumerating topics.

8. The method of claim 1, wherein extracting request information further comprises extracting a user identifier to identify the user.

9. The method of claim 8, wherein executing the selected notification management function comprises subscribing the identified user to a topic corresponding to the topic identifier specified by the extracted request information, said identified user to receive at least one notification via the web-based notifications system relating to the topic when subscribed thereto.

10. The method of claim 9, wherein subscribing the identified user comprises: querying a user profile store for profile information corresponding to the identified user;

determining routing information for the notification based on the profile information;

creating a subscription corresponding to the topic identifier, said subscription including the topic identifier, the user identifier, and the routing path for the notification; and

creating a response object in response to said received request, said response object being structured according to the messaging framework, said response object containing information identifying the created subscription; and

sending the response object to the content provider via the data communication network.

11. The method of claim 8, wherein executing the selected notification management function comprises unsubscribing the identified user to a topic corresponding to the topic identifier specified by the extracted request information, said identified user to no longer receive notifications via the web-based notifications system relating to the topic when unsubscribed thereto.

12. The method of claim 8, wherein executing the selected notification management function comprises updating one or more subscriptions based on the user identifier and the topic identifier specified by the extracted request information.

13. One or more computer-readable media having computer-executable instructions for performing the method of claim 1.

14. A method of managing notifications in a web-based notifications system, said notifications system being configured to provide notifications to a user via a data communication network, said notifications containing content provided by one or more content providers, said content relating to one or more topics, said method comprising:

implementing a web service responsive to requests structured according to an extensible messaging framework;

receiving, at the web service, a request from a content provider, said request being structured according to the messaging framework;

extracting request information from the request, said request information including at least a content provider identifier, a topic identifier, and a user identifier;

querying a user profile store for profile information corresponding to the user identifier;

determining routing information for a notification based on the profile information; and

creating a subscription corresponding to the topic identifier, the user identifier, and the routing path for the notification.

15. The method of claim 14, wherein said request information extracted from the request further specifies a selected notification management function to be performed by the notifications system, and further comprising executing the selected notification management function based on the extracted request information.

16. The method of claim 15, wherein executing the selected notification management function comprises subscribing the user to a topic corresponding to the topic identifier specified by the extracted request information, said user to receive at least one notification via the web-based notifications system relating to the topic when subscribed thereto.

17. The method of claim 15, wherein executing the selected notification management function comprises unsubscribing the user to a topic corresponding to the topic identifier specified by the extracted request information, said user to no longer receive notifications via the web-based notifications system relating to the topic when unsubscribed thereto.

18. The method of claim 14, further comprising creating a response object in response to said received request, said response object being structured according to the messaging framework, said response object containing information relating to either success or failure of the request.

19. The method of claim 18, wherein said response object contains information identifying the created subscription.

20. The method of claim 18, further comprising sending the response object to the content provider via the data communication network.

21. The method of claim 14, wherein the extensible messaging framework comprises a Simple Object Access Protocol (SOAP) and wherein the request comprises a SOAP request.

22. The method of claim 14, wherein the request includes a header and wherein extracting request information comprises extracting the content provider identifier from the header.

23. One or more computer-readable media having computer-executable instructions for performing the method of claim 14.

24. A web-based system for processing notifications, said notifications containing content provided by one or more content providers, said content relating to one or more topics, said system comprising:

a computing device to implement a web service responsive to requests structured according to an extensible messaging framework, said computing device being coupled to a data communication network and configured to receive a request from a content provider via the data communication network, said request from the content provider specifying a selected notification management function, said request being structured according to the messaging framework;

a computer-readable medium storing computer-executable instructions to be executed on the computing device to extract request information from the request, said request information including a content provider identifier and a topic identifier associated with the request and to perform the selected notification management function based on the extracted request information; and

a memory associated with the computing device to store the extracted request information in connection with the selected notification management function.

25. The system of claim 24, wherein the extensible messaging framework comprises a Simple Object Access Protocol (SOAP) and wherein the request comprises a SOAP request.

26. The system of claim 24, wherein the request includes a header and the content provider identifier is extracted from the header.

27. The system of claim 24, wherein the computer-readable medium further stores computer-executable instructions to be executed on the computing device to create a response object in response to said received request, said response object being structured according to the messaging framework, said response object containing information relating to either success or failure of the request.

28. The system of claim 24, wherein the selected notification management function comprises one of the following: creating a topic; deleting a topic; updating a topic; and enumerating topics.

29. The system of claim 24, wherein the request information further comprises a user identifier to identify the user.

30. The system of claim 29, wherein the selected notification management function comprises subscribing the identified user to a topic corresponding to the topic identifier specified by the extracted request information, said identified user to receive at least one notification relating to the topic when subscribed thereto.

31. The system of claim 29, wherein the selected notification management function comprises unsubscribing the identified user to a topic corresponding to the topic identifier specified by the extracted request information, said identified user to no longer receive notifications relating to the topic when unsubscribed thereto.

32. A web-based system for processing notifications, said notifications containing content provided by one or more content providers, said content relating to one or more topics, said system comprising:

a computing device to implement a web service responsive to requests structured according to an extensible messaging framework, said computing device being coupled to a data communication network and configured to receive a request from a content provider via the data communication network;

a user profile store associated with the computing device to store information representative of a plurality of users; and

a computer-readable medium storing computer-executable instructions to be executed on the computing device to extract request information from the request, said request information including a content provider identifier, a topic identifier, and a user identifier associated with the request, to query the user profile store for profile information corresponding to the user identifier, to determine routing information for a notification based on the profile information, and to create a subscription corresponding to the topic identifier, the user identifier, and the routing path for the notification.

33. The system of claim 32, wherein said request information extracted from the request further specifies a selected notification management function to be performed by the system, and wherein the computer-readable medium further stores computer-executable instructions to be executed on the computing device to perform

the selected notification management function based on the extracted request information.

34. The system of claim 33, wherein the selected notification management function is selected from the following group: creating a topic; deleting a topic; enumerating topics; creating a subscription; deleting a subscription; updating a subscription; and enumerating subscriptions.

35. The system of claim 32, wherein the computer-readable medium further stores computer-executable instructions to be executed on the computing device to create a response object in response to said received request, said response object being structured according to the messaging framework, said response object containing information relating to either success or failure of the request, and wherein the computing device is configured to send the response object to the content provider in response to the request received therefrom.

36. The system of claim 32, wherein the extensible messaging framework comprises a Simple Object Access Protocol (SOAP) and wherein the request comprises a SOAP request.

37. A web service for managing notifications in a web-based notifications system, said notifications system being configured to provide notifications to a user via a data communication network, said notifications containing content provided by one or

more content providers, said content relating to one or more topics, said web service comprising:

a computing device to implement the web service, said computing device being coupled to the data communication network and configured to receive requests structured according to an extensible messaging framework from one or more content providers via the data communication network; and

a computer-readable medium storing computer-executable instructions to be executed on the computing device to provide the extensible messaging framework to the content providers to create requests, said requests when structured according to the messaging framework each specify a selected notification management function and contain request information, said request information for each of the requests including a content provider identifier and a topic identifier associated therewith, said computer-readable medium further storing computer-executable instructions to be executed on the computing device to extract the request information for each of the requests and to perform the selected notification management function based on the extracted request information.

38. The web service of claim 37, wherein the extensible messaging framework comprises a Simple Object Access Protocol (SOAP) and wherein the requests comprise SOAP requests.

39. The web service of claim 37, wherein the computer-readable medium further stores computer-executable instructions to be executed on the computing device

to create a response object in response to each of said received requests, said response objects each being structured according to the messaging framework and containing information relating to either success or failure of the request.

40. The web service of claim 37, wherein the selected notification management function comprises is selected from the following group: creating a topic; deleting a topic; enumerating topics; creating a subscription; deleting a subscription; updating a subscription; and enumerating subscriptions.